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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,874	08/22/2003	Timothy J. Miller	15463ZYXWV (PC9003E)	6784

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EXAMINER

HILL, MYRONG

ART UNIT PAPER NUMBER

1648

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/646,874	MILLER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Myron G. Hill	1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13,23,28,29,31,36,38,44,46 and 49-59 is/are pending in the application.
- 4a) Of the above claim(s) 3,23,28,29,31,36,38,44,46 and 49-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 57-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8 September 2005 has been entered.

Claims 3, 23, 28, 29, 31, 36, 38, 44, 46 and 49-56 are withdrawn from consideration.

Claims 57-59 are under consideration.

***Rejections Withdrawn***

***Claim Rejections - 35 USC § 112***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4, and 6-10 were rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for residues consisting of residues 137-151 of WT DF2/WT WSU 1146 for diagnostic uses of differentiating FIPV from FECV, does not reasonably provide enablement for peptides comprising residues 137-151,

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methods of treatment or prophylaxis using any peptides, or peptides from other related viruses. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The claims have been canceled and the rejection is withdrawn.

### ***New Rejections***

### ***Claim Objections***

Claim 57 is objected to because of the following informalities: the list of subsequences in the claim is linked by "and". The claim reads on a polypeptide that includes all the recites subsequences. It is suggested that the phrase be amended to recite subsequence 1, 2, or 3 or be amended to recite selected from the group consisting of the following subsequences. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

Claims 57 and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobs *et al.* (from IDS, Virus Research 1987, 8:363).

The claims are drawn to a peptide or protein from the S protein of FECV or FIPV including positions 137-151.

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Jacobs *et al.* teach a peptide that comprises bases 137-151 of SEQ ID#22 (the elected sequence) (Figure 2 (a) line 4 of translation, middle starting LVCIT...).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs *et al.* and Offensperger *et al.*

The claims are drawn to a peptide that contains a fusion partner.

Jacobs *et al.* is discussed above.

Jacobs *et al.* does not teach a fusion partner.

Offensperger *et al.* teach that adding fusion partners to proteins is useful in expressing and purifying peptides (abstract, Figure 1, and entire paper).

One of ordinary skill in the art at the time of invention would have been motivated to use a fusion partner as taught by Offensperger *et al.* with the expectation of success because Offensperger *et al.* teaches that it is useful to aid in purification.

Thus, it would be *prima facie* obvious to add a fusion partner with the expectation of success of making the peptide easier to purify.

### ***Double Patenting***

Claims 57-59 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No.US006642359B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are drawn to identical peptides of residues 137-151 of identical SEQ ID#s. The patent (parent of this application) claims positions 137-151 of SEQ ID#32 and the instant claims read on that sequence as well.

### ***Conclusion***


No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myron G. Hill whose telephone number is 571-272-0901. The examiner can normally be reached on 8:30 am-5 pm Mon-Fri.

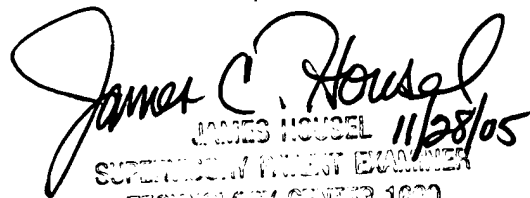
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 571-272-0902. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Myron G. Hill  
Patent Examiner  
November 23, 2005



JAMES HOUSEL 11/28/05  
SUPERVISOR PATENT EXAMINER  
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